

**hp-ux 11i  
version 1.6  
(B.11.22)  
for Itanium®-based  
systems**

**read before  
installing  
hp-ux 11i  
version 1.6**



**july 2002**

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## Welcome to HP-UX 11i Version 1.6

This DVD booklet outlines the contents of the HP-UX 11i Version 1.6 media box and describes features and known problems associated with this release.

***HP-UX 11i Version 1.6 is the release for all Itanium®-based HP-UX systems.*** The HP-UX 11i Version 1.6 Operating Environments (OEs) are integrated and tested software solutions containing the operating system and selected applications.

Precision Architecture Reduced Instruction Set Computing (PA-RISC)-based systems should continue to run HP-UX 11i (Release ID B.11.11) or earlier. HP-UX 11i v1.6 does not run on PA-RISC-based systems.

***HP-UX 11i Version 1.6 has a Release ID of B.11.22. Throughout this guide, HP-UX 11i Version 1.6 is referenced using the term HP-UX 11i v1.6.***

For the latest release information, see the HP-UX 11i v1.6 web site:

<http://docs.hp.com/hpux/os/11iV1.6>

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## Media Kit Contents

This install guide is part of the HP-UX 11i v1.6 media kit. Please review the contents of the media kit. It also includes the following DVDs, CD, and documents:

- **HP-UX 11i v1.6 (B.11.22) DVD**  
Contains the HP-UX operating system (OS), required networking software, Ignite-UX, and online diagnostics.
- **HP-UX 11i v1.6 (B.11.22) Applications DVD**  
Contains HP-UX application software.
- **HP-UX 11i Version 1.6 Instant Information CD**  
Contains current HP-UX manuals, release notes, and white papers. See the CD booklet for more information.
- ***Read Before Installing HP-UX 11i Version 1.6***  
Provides last-minute information for HP-UX 11i v1.6. Read this DVD booklet before installing or configuring HP-UX.
- ***HP-UX 11i Version 1.6 Release Notes***  
Describes new features and functionality changes for HP-UX 11i v1.6. This file is on the system after you install HP-UX in `/usr/share/docs`  
Release Notes are also available on the Instant Information

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CD and on the web:

<http://docs.hp.com/hpux/os/11iV1.6>

- ***HP-UX 11i Version 1.6 Installation and Configuration Guide***

Describes the media kit and provides instructions for cold-installing and configuring HP-UX 11i v1.6. The guide is also available on the web:

<http://docs.hp.com/hpux/os/11iV1.6>

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## What's New

The HP-UX 11i v1.6 release includes the following new features and enhancements:

- Built for 64-way scalability
- Full HP-UX 11i OS functionality (with the exception of vPars)
- New OS functionality not yet available on PA-RISC:
  - MxN threads for improved Java performance
  - Dynamically tunable kernel parameters include 14 new parameters
- Full support of the Logical Volume Manager (LVM) product as the default volume manager
- Support for running most PA-RISC applications on Itanium-based systems without recompiling
- Enhancements to existing commands and functionality
- Availability of more products in Native mode

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## Features and Applications

The following features and applications are available in this release:

- Three Operating Environments (Base, MTOE, and TCOE)
- 32- and 64-bit versions of ALL system libraries (shared only), both PA-RISC and Itanium
- Dynamic Tunables
- Core security functionality
- JFS Version 3.3 (Veritas File System)
- Veritas Volume Manager version 3.1
- CDFS w/Rock Ridge Extensions
- NIS/NIS+
- Logical Volume Manager (LVM) now the default volume manager
- New kernel configuration tool, kcweb
- System Administration Manager (SAM)
- MC/ServiceGuard
- ServiceGuard Extension for RAC (formerly ServiceGuard OPS Edition)

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- Enterprise Cluster Master Toolkit
  - Network Transport
  - Automounter
  - Internet Services
  - HP-UX Processor Sets
  - C, ANSI C++, and Fortran compilers
  - Dynamic Loader
  - Pthread Library (libthread)
  - MxN Thread Model
  - Common Desktop Environment (CDE)
  - Strong Random Number Generator
  - Internationalization fonts, character sets, and converters
  - Distributed Computing Environment (DCE)
  - HP-UX Software Transition Kit (STK)
  - Aries Binary Translator
  - Shadow Passwords
  - Ignite-UX

A complete list of applications included in the HP-UX 11i v1.6 release is available at:

<http://www.software.hp.com/MATRIX>

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## Install Overview

For detailed instructions on how to install HP-UX 11i v1.6, see the *HP-UX 11i Version 1.6 Installation and Configuration Guide*. It is available at the following locations:

- Instant Information CD
- HP-UX 11i v1.6 media kit
- On the web:  
`http://docs.hp.com/hpux/os/11iV1.6`

The following steps provide an overview HP-UX 11i v1.6 install:

1. Review this booklet and the install guide for information.
2. Prepare your system to install with specific tasks from both documents.
3. Install an HP-UX 11i v1.6 operating environment.
4. Verify the installation worked correctly.
5. Install any other critical patches and non-OS HP applications.

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**Note**

After you successfully install the HP Apache-based Web Server, it starts automatically. If you want to stop the HP Apache-based Web Server, enter as `root`:

```
/opt/apache/bin/apachectl stop
```

To disable the HP Apache-based Web Server from starting on a reboot, edit the file `/etc/rc.config.d/apacheconf` and set the variable `APACHE_START` to `0`.

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## **Known Problems**

This section contains critical, last-minute information about the latest release of HP-UX 11i v1.6:

- A5158A Tachlite PCI adapter not supported, *page 13*
- Upgrade BIOS on rx4610 before installing HP-UX 11i v1.6, *page 14*
- Software patches for C/C++ language products, *page 14*
- Internet Explorer on Windows XP may not connect to kcweb, *page 15*
- Possible VxVM (v1.3) related operating system hang, *page 16*
- Limited support for ServiceGuard, *page 16*
- PCI Bus Error Message on system boot, *page 16*

### **A5158A Tachlite PCI adapter not supported**

The A5158A Tachlite PCI adapter is not supported on HP-UX 11i v1.6. If you are migrating from 11i v1.5 to 11i v1.6, HP will replace your A5158A 1-Gbps adapter with an A6795A 2-Gbps

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Tachlite PCI adapter. Call your HP representative for the details, and reference Service Note No. A5158A-04. Because the A6795A adapter is not supported on 11i v1.5, the replacement must be done at the time of migration.

## **Upgrade BIOS on rx4610 before installing HP-UX 11i v1.6**

Prior to installing HP-UX 11i v1.6 on an rx4610, HP recommends upgrading to BIOS version 109. The latest BIOS is available at:

[http://h20004.www2.hp.com/keeper\\_rnotes/bsdmatrix/matrix51227.html](http://h20004.www2.hp.com/keeper_rnotes/bsdmatrix/matrix51227.html)

## **Software patches for C/C++ language products**

In October 2002, a set of software patches relating to the C/C++ language products (including the system linker, Aries, and the math libraries) will be available through HP's external web site at:

<http://support1.itrc.hp.com/service/patch/mainPage.do>

These patches will deliver performance enhancers for Itanium-based systems and available repairs for known product defects.

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Updated companion versions of the HP WDB debugger and HP Caliper performance analysis tool will also be available for free download from HP's web site in October 2002.

## **Internet Explorer on Windows XP may not connect to kcweb**

The HP-UX Kernel Configuration tool (`kcweb`) is a web-based program that displays on Netscape and Internet Explorer web browsers. Primary testing was done on Netscape 4.79 on HP-UX and Internet Explorer (IE) 5.0 on Windows 2000. Some versions of IE running on Windows XP are unable to connect to the `kcweb` server. This problem was seen with both Home and Professional editions of Windows XP and with IE 5.5 and 6.0. It is not known if the source of problem is the `kcweb` server, IE, or Windows XP.

The following workarounds are available:

- **Use a different browser.** Use Netscape 4.x and Netscape 6.0 running on Windows XP instead of IE.
- **Use a different version of Windows.** IE versions 5.x and 6.0 running on Windows 2000 are compatible with `kcweb`.
- **Use an X server.** Netscape 4.79 is available on all HP-UX 11.22 systems. Netscape will display on an X server running on an HP-UX workstation or on a PC with X server software.

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## **Possible VxVM (v1.3) related operating system hang**

Running VxVM (version 1.3) as the volume manager on machines running under extreme memory pressure (such as very low memory or heavily loaded machines) may cause the operating system to hang. To avoid this issue:

- Increase the system memory.
- Tune the system to avoid heavy loads and extreme memory pressure.
- Use LVM instead of VxVM as a volume manager.

## **Limited support for ServiceGuard**

ServiceGuard is supported only on rx2600 and rx5670 systems.

## **PCI Bus Error Message on system boot**

On the rx4610 with BIOS version 109, when you have a large number of disks configured and/or the serial console is configured, then it may cause the system not to boot. The system does not see any of its internal disks and will not boot unless you disconnect or power off all SCSI connections. The SCSI cards affected are A5150A and A5159A.

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## Web Resources

For additional help when cold installing or updating HP-UX 11i v1.6 and related products, go to the web:

- Latest HP-UX 11i v1.6 information:  
<http://docs.hp.com/hpux/os/11iV1.6>  
<http://forums.itrc.hp.com>  
<http://www.hp.com>
- Local-language user guides:  
<http://docs.hp.com>  
Select Localized Documentation.
- Latest HP-UX server and workstation information:  
<http://www.hp.com/products1/servers/operating/hpux.html>  
<http://www.hp.com/workstations/products/unix/index.html>
- Downloading HP-UX patches and patch information from the HP IT Resource Center web:  
<http://itrc.hp.com>  
Select the Maintenance and Support page, then select the

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appropriate patching tools. To receive HP Security Bulletins, select the Maintenance and Support page, then select Support Information Digests.

- Known problems, workaround solutions, and frequently asked questions (FAQs):

<http://itrc.hp.com>

- International information:

<http://www.hp.com>

Select a country or region.

- HP-UX Software Transition Kit:

<http://devresource.hp.com/STK>

- Ignite-UX information and download:

<http://software.hp.com/products/IUX>

- Safety and ergonomic information:

<http://www.hp.com/ergo>





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